

## **REMARKS**

Claims 1, 3 through 7, 9 through 10 and 21 through 32 are pending in the application with the present amendments including claims 27 through 32 which are added in the present amendment.

In the Office Action, all claims were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,331,478 to Lee et al. ("*Lee*") or rejected under 35 U.S.C. §103(a) as being obvious over *Lee* in view of U.S. Patent No. 6,426,247 to Divakaruni et al. ("*Divakaruni*"). For the reasons set forth below, Applicants submit that the presently pending claims are fully distinguished from *Lee* and from the combination of *Lee* with *Divakaruni*.

In the embodiments of the invention claimed herein, a conductor line stack includes a dielectric cap which has sidewalls that are aligned to sidewalls of an upper portion of a second layer of the conductor line stack. As described in Applicants' specification at paragraphs [0043] and [0044] and illustrated in FIGS. 5-7, such structure results from the patterning of a dielectric layer to provide an insulating cap "for serving as a hardmask when the layered stack [of the conductor line layers] is etched." A reactive ion etch is conducted to directionally etch the layered stack in a vertical direction, such etch being performed selectively to the material of the dielectric layer (from which the insulating cap is provided).

As now amended, all of the currently amended claims reflect a structure of an insulating cap overlying a second layer of the conductor line stack, the insulating cap having sidewalls that are aligned with sidewalls of the upper portion of the second layer of the conductor line stack. The conductor line stack further includes a pair of first

spacers that are disposed on sidewalls of the upper portion and on the aligned sidewalls of the insulating cap. In this way, the lower portion has a width that is defined by a width of the upper portion combined with a width of the pair of first spacers from the aligned sidewalls of the insulating cap. Stated another way, in the invention according to the presently pending claims, the lower portion must be wider than the upper portion by the width of the first spacers from the aligned sidewalls of the insulating cap.

By contrast, *Lee* neither teaches nor suggests such structure. Referring to *Lee*, FIG. 1F, the dielectric cap 20 does not have sidewalls that are aligned with sidewalls of the upper portion 17b of the conductor line stack. Rather, the sidewalls of the dielectric cap 20 overhang the upper portion. In fact, the sidewalls of the dielectric cap are aligned with the sidewalls 17a of the lower portion. In addition, the lower portion (at 17a) of the metal silicide layer does not have a width that is defined by a width of the upper portion (at 17b) combined with the width of a pair of spacers from aligned sidewalls of the insulating cap 20. Rather, the lower portion of the metal silicide layer (at 17a) has the same width as the width of the dielectric cap 20.

In addition, claims 27 through 32 incorporate features which further distinguish the claimed invention from *Lee* and the combination of *Lee* and *Divakaruni*. Claims 27 through 29 recite an etch stop layer disposed between the upper portion and the lower portion of the second layer. The etch stop layer includes a third material which is substantially not attacked by an etchant which attacks the second material of which the second layer essentially consists. Claims 30 through 32 recite an etch distinguishable layer disposed between the upper portion and the lower portion, the etch distinguishable layer including a third material which produces a chemical signal when contacted by an

etchant which attacks the second material. These features are neither taught nor suggested by *Lee* or the combination of *Lee* with *Divakaruni*.

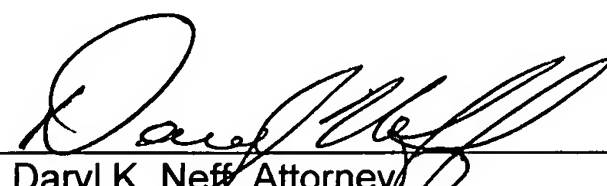
Support for the present amendments is provided, *inter alia* at paragraphs [0035] through [0048] and FIGS. 2 and 5-7.

Accordingly, in view of the amendments and remarks herein, it is believed that all claims of the application are now in condition for allowance. However, if for any reason the Examiner does not believe that such action can be taken at this time, the Examiner is requested to telephone the Applicants' attorney at the number indicated below to discuss any issues that may remain.

It is believed that no fee is due in connection with the filing of this Amendment. However, if any fee is due, authorization is granted to debit the Deposit Account No. 09-0458 of the Assignee. If there is an overpayment, please credit the same account.

Respectfully submitted,  
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